**NRC INSPECTION MANUAL** RDB

INSPECTION MANUAL CHAPTER 2561

DECOMMISSIONING POWER REACTOR INSPECTION PROGRAM

Effective Date: 07/01/2025

# 2561-01 PURPOSE

To establish the policy and guidance for the U.S. Nuclear Regulatory Commission (NRC) decommissioning inspection program for nuclear power reactors regulated under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, “Domestic Licensing of Production and Utilization Facilities.”

# 2561-02 OBJECTIVES

02.01 To provide general guidance for the coordination, planning, and performance of risk‑informed inspections of power reactor licensees undergoing decommissioning.

02.02 To obtain information through direct observation and verification of licensee activities to determine whether the power reactor is being decommissioned safely, that spent fuel is safely and securely stored onsite or transferred to another licensed location, and that site operations and license termination activities are in conformance with applicable regulatory requirements, the facility licensing basis, licensee commitments, and management controls.

# 2561-03 APPLICABILITY

The decommissioning power reactor inspection program establishes the inspection requirements and guidance for the decommissioning of 10 CFR Part 50 power reactor licensees. This program is to be implemented shortly after the licensee submits certifications in accordance with 10 CFR 50.82(a)(1) and is to continue until license termination. If the Part 50 license is reduced via radiological decommissioning and license amendment (partial site release) to only what is necessary to support an Independent Spent Fuel Storage Installation (ISFSI), then the licensing program is transferred to the Division of Fuel Management, and dry cask storage inspections shall be conducted under IMC 2690, "Inspection Program for Dry Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations." When generally licensed ISFSIs are decommissioned, inspections revert to this IMC. Security inspections covering the 10 CFR Part 73, “Physical Protection of Plants and Materials,” are not part of this IMC and are implemented separately.

# 2561-04 DEFINITIONS

04.01 Decommission

To remove a facility or site safely from service and reduce residual radioactivity to a level that permits: (1) release of the property for unrestricted use and termination of the license; or (2) release of the property under restricted conditions and termination of the license.

04.02 Independent Spent Fuel Storage Installation (ISFSI)

A complex designed and constructed for the interim storage of spent nuclear fuel, solid reactor‑related Greater than Class C (GTCC) waste, and other radioactive materials associated with spent fuel and reactor-related GTCC waste storage. An ISFSI, which is located on the site of another facility licensed under Part 72 or a facility licensed under Part 50 and which shares common utilities and services with that facility or is physically connected with that other facility may still be considered independent.

04.03 License Termination Plan (LTP)

A plan required by 10 CFR 50.82(a)(9) that must be approved via license amendment and upon approval supplements the Final Safety Evaluation Report. The LTP includes: (1) a site characterization; (2) identification of remaining dismantlement activities; (3) plans for site remediation; (4) detailed plans for the final radiation survey; (5) a description of the end use of the site, if restricted; (6) an updated site-specific estimate of remaining decommissioning costs; (7) a supplement to the environmental report describing any new information or significant environmental change associated with site decommissioning; and (8) identification of parts, if any, of the site that were released for use before approval of the license termination plan.

04.04 Major Decommissioning Activity

As defined in 10 CFR 50.2, means for a nuclear power reactor facility, any activity that results in permanent removal of major radioactive components, permanently modifies the structure of the containment (for pressurized water reactors (PWRs), primary containment; for boiling water reactors (BWRs), the primary and secondary containments), or results in the dismantling of components or systems for shipment containing “greater than Class C” waste (see 10 CFR 61.55, “Waste classification”).

04.05 Major Radioactive Component

As defined in 10 CFR 50.2, means for a nuclear power reactor facility, this includes the reactor vessel and internals, steam generators, pressurizer, large bore reactor coolant system piping, and other large components that are radioactive to a comparable degree.

04.06 Possession-Only License

Possession-only licenses (POLs) were issued by the Office of Nuclear Reactor Regulation (NRR) to decommissioning licensees prior to the decommissioning regulation changes in 1996. POLs are amended to reflect the permanently shut down condition of the facility and the licensee's continued possession of spent nuclear fuel. POLs are no longer issued to any facility that entered decommissioning after the 1996 decommissioning rule change.

04.07 Post Shutdown Decommissioning Activities Report (PSDAR)

A report, required by 10 CFR 50.82(a)(4) that provides a description of the licensee’s planned decommissioning activities, a schedule for their accomplishment, an estimate of the associated decommissioning costs, and a discussion that provides the reasons for concluding that the environmental impacts associated with site‑specific decommissioning will be bounded by appropriate, previously issued environmental impact statements or other environmental assessments.

04.08 SAFSTOR

A long-term storage condition for a permanently shut down nuclear power plant. During SAFSTOR, radioactive contamination decreases substantially, making subsequent decontamination and demolition easier and reducing the amount of LLW requiring disposal.

04.09 DECON

A phase of reactor decommissioning in which structures, systems, and components that contain radioactive contamination are removed from a site and safely disposed of at a commercially operated low-level waste disposal facility or decontaminated to a level that permits the site to be released for unrestricted use.

# 2561-05 RESPONSIBILITIES AND AUTHORITIES

## 05.01 Director, Office of Nuclear Reactor Regulation

Provides overall direction for the transition of power reactors from operation to decommissioning and the transfer of the facility from NRR project management and the Reactor Oversight Program to Nuclear Material Safety and Safeguards (NMSS) project management and the Decommissioning Power Reactor Inspection Program in accordance with NRR COM-101, App A, “Interfaces for Decommissioning,” and NMSS P&P 5-1, “Reactor Decommissioning Program Procedures for Interfacing with the Office of Nuclear Reactor Regulation.”

## 05.02 Director, Office of Nuclear Material Safety and Safeguards

Provides overall direction for the decommissioning power reactor project management and inspection programs, for power reactors in decommissioning status, until the license is terminated.

## 05.03 Chief, Reactor Decommissioning Branch (RDB)

Coordinates, develops, and implements the decommissioning power reactor project management program, and provides programmatic oversight of the regional inspection requirements and policies.

## 05.04 Regional Administrator

1. Provides program direction for management and implementation of the inspection program elements performed by their regional office.
2. Ensures that the regional office staff includes adequate numbers of inspectors in various disciplines to carry out the inspection program as assigned and described in this chapter.

## 05.05 Regional Division Director

1. Coordinates with NMSS and other NRC program offices to obtain technical assistance, as necessary.
2. Ensures, within budget limitations, that the regional office staff includes adequate numbers of inspectors to carry out the inspection program described in this chapter, including reactive inspections.
3. Ensures appropriate inspection effort is applied to each decommissioning reactor site commensurate with radiological risk, inspector experience, and licensee performance.

## 05.06 Regional Manager (First line supervisor to inspectors)

1. Directs and implements the reactor decommissioning inspection program in the region in accordance with this IMC and coordinates with the appropriate Headquarters or regional managers, as applicable, to implement this IMC.
2. Approves changes to the inspection program based, in part, on activities at the licensee site and licensee performance.
3. Reviews enforcement actions in accordance with NRC enforcement guidance.

# 2561-06 REQUIREMENTS

## 06.01 Reactor Decommissioning Program Discussion

In accordance with the NRC regulations, the decommissioning of power reactors may take up to 60 years from permanent cessation of operations. In addition, decommissioning activities at a specific unit may range from relative inactivity (e.g., deferred dismantlement under SAFSTOR) to activities that have a greater potential to challenge public health and safety and the environment (e.g., active dismantlement under DECON). This manual chapter defines inspection requirements and guidance necessary to provide reliable, efficient, and effective oversight of the wide range of decommissioning activities after permanent cessation of operations. The reactor decommissioning inspection program is implemented in a risk-informed performance‑based manner with inspections focused on safety and security to ensure protection of the workers, the public, and the environment.

The power reactor decommissioning inspection program is completed annually by performing both the core IPs and the applicable periodic or discretionary IPs when warranted and commensurate with the most applicable decommissioning inspection category found in Appendix A of this IMC. The power reactor core inspection program may be augmented by discretionary procedures listed in Appendix B of this IMC or any other NRC inspection procedure deemed applicable.

For planning purposes, the range of decommissioning states are grouped into nine possible categories. These categories are listed as follows:

* 1. Post-Operation Transition Phase
	2. Actively Decommissioning (DECON), Fuel in the Spent Fuel Pool
	3. Actively Decommissioning (DECON), No Fuel in the Spent Fuel Pool
	4. SAFSTOR, Fuel in the Spent Fuel Pool
	5. SAFSTOR, No Fuel in the Spent Fuel Pool
	6. SAFSTOR, Co-Located with Operational Unit, Fuel in the Spent Fuel Pool
	7. SAFSTOR, Co-Located with Operational Unit, No Fuel in the Spent Fuel Pool
	8. Final Status Surveys Underway, No Fuel in the Spent Fuel Pool
	9. Active Transition to Restart

It is expected that the category, and thus the direct inspection effort and associated resources for a decommissioning power reactor, will change over time, based on the progress of decommissioning at the facility (i.e., an actively-decommissioning facility would be expected to go from Category 1 to 2 and eventually to Category 8 as decommissioning progresses). Categories 4 and 5 are intended for decommissioning single or multi-unit sites in SAFSTOR where all units have permanently shut down. Categories 6 and 7 are intended for decommissioning units at multi-unit sites where at least one unit is still in operation. These operational units are expected to maintain resident inspectors and remain in the Reactor Oversight Process (ROP) to provide oversight of the site wide programmatic inspections, such as radiological safety, corrective action, and quality assurance. Category 9 is intended when a licensee submits a request for exemption from the requirements of 10 CFR 50.82 to allow placing fuel in the reactor vessel and authorizing operation of the reactor. Further guidance may be found in Appendix A below and in IMC 2562, “Light-Water Reactor Inspection Program for Restart of Reactor Facilities Following Permanent Cessation of Power Operations.”

Transitions between the nine categories should be documented in an inspection report (e.g., provide a description of the current site status), however, it is expected that a facility may have ongoing activities that overlap categories and the inspection effort should be modified as appropriate.

## 06.02 Inspection Planning

At the discretion of Regional Management, the regional staff may choose to develop annual site-specific inspection plans for a power reactor facility undergoing decommissioning. Regional staff should base the planned inspection procedures and scope on a review of the licensee’s planned decommissioning activities for the upcoming year using the guidance found in Appendix A. It should be noted that all IPs listed in Appendices A and B are applicable to both sites shutdown under 10 CFR 50.82(a)(1) and sites shut down prior to those regulations being in place.

The scope of the overall inspection program and/or of a particular IP may be adjusted by the inspector’s first line supervisor, so that an appropriate level of inspection effort is conducted, commensurate with the amount and risk significance of site activities, multi‑unit considerations, and licensee performance. The inspection procedure represents the inspection necessary to allow the NRC to effectively assess licensee performance. This means that the inspector is to perform the inspection requirements most applicable in order to declare that the IP has been satisfactorily completed, thus meeting the objectives of the IP. Each requirement within an IP does not need to be completed during each inspection performed. However, all applicable requirements need to be performed within the specified frequency for the IP to meet the objective of the IP and to be able to declare it as satisfactorily completed in accordance with this IMC. Inspectors may use alternative inspection procedures or temporary instructions to meet core inspection program requirements with management approval; the use of such shall be documented in the inspection report.

Depending on a number of factors, there will be changes to site programs based on the results of licensee-performed heat up analysis that calculates the time to a zirconium cladding fire (zirconium fire window) following a postulated complete and instantaneous loss of cooling to spent fuel. These include significant changes to emergency preparedness and fire protection programs. The appropriate IPs should be performed to review these, and subsequent major changes. An additional example of a typical major program change is a security program change when all spent fuel is relocated to an ISFSI. For these inspections, the use of regional or other NRC subject matter experts should be considered.

Regional staff should periodically review and adjust the planned inspection efforts in a risk-informed manner. See section 06.07 for additional information. In addition, regional management should periodically assess completion of the decommissioning inspection program at each facility. This assessment should include a review of whether inspection objectives were met commensurate with site activities and status, whether any deviations exist and were appropriately justified, and whether any discretionary procedures should be performed.

The agency’s response to significant events is described in NRC Management Directive 8.3, “NRC Incident Investigation Program” and IMC 0309, “Reactive Inspection Decision Basis for Power Reactors.” The decision to initiate a reactive inspection for significant events shall be made in consultation with regional management and program office management, as appropriate. Routine events that do not meet the criteria of a reactive inspection will be followed up by inspectors utilizing the appropriate core inspection procedure(s).

## 06.03 Management Communication with Licensee Representatives and Public Outreach

In addition to the 10 CFR 50.82 requirements to hold public meetings related to certain decommissioning activities in the vicinity of the decommissioning power reactor, NRC headquarters and regional management should plan periodic visits to decommissioning facilities to fully understand the licensee's plans to decommission the facility. NRC management should consider visiting the site prior to the development of a site-specific inspection plan or prior to a significant change in decommissioning status. As decommissioning progresses, additional site visits may be held periodically or prior to major changes in the status of decommissioning to gain licensee management insights and perspectives. The NRC management focus should be to understand licensee plans, schedules, and controls implemented to ensure safety and security.

The NRC is an independent safety regulator and maintains an “open door” policy with regard to access by members of the public or tribal, state and local officials to the NRC staff, as well as to publicly available documentation of a licensee’s current and past performance. Some licensees or States will sponsor periodic community engagement panels or citizens advisory boards to discuss various decommissioning topics that may be of interest to affected stakeholders near the plant. The degree of interaction that is considered necessary to maintain transparency regarding ongoing activities is expected to vary widely depending upon the situation at each decommissioning facility. In each case where inspectors are utilized by management to support this purpose or to address stakeholder inquiries, regional management must carefully balance the use of inspection resources to complete inspections with the need to maintain and enhance public confidence.

## 06.04 Transition of Units to Decommissioning and the Use of Resident Inspectors at Decommissioning Power Reactors

For a site that submitted a certification of permanent cessation of operations, in accordance with 10 CFR 50.82(a)(1)(i) until the unit is certified permanently defueled, the site‑specific inspection effort will be based on the operating reactor inspection program (IMC 2515). Section 2515-15, “Baseline Inspection Guidance for Power Reactors Preparing for Transition to Decommissioning Phase,” gives additional guidance for inspectors to use during this transition phase. After the licensee certifies permanent fuel removal from the reactor vessel, IMC 2561 is implemented for the remainder of the decommissioning process, and oversight of the licensee is no longer under the ROP. The licensee is informed of the transition in oversight programs as specified in IMC 0305, “Operating Reactor Assessment Program.” The regional branch with responsibility for decommissioning inspections is the lead for this communication to the licensee, headquarters staff, and the public. Upon the implementation of the decommissioning power reactor inspection program, resident inspector (or region-based) direct inspection effort will be based on the Post-Operation Transition Category in Appendix A.

NRR Office Instruction COM-101 and the Office of Nuclear Material Safety and Safeguards (NMSS) Policy and Procedure 5-1 provide direction for NRC activities and funding requirements during the operation-to-decommissioning transition.

After a licensee permanently ceases power operations, NRC regional management with HQ management support implements the inspection program for decommissioning power reactor facilities and considers the following: (1) there will be initial, short-term, resident inspector coverage; (2) licensee decommissioning programs and procedures should be comparable to the rigor, quality, and effectiveness of those used during power reactor operation; (3) few immediate changes would be expected in the technical ability and safety perspective of the licensee's staff and management; and (4) the primary safety significant activities would consist of maintaining safe reactor shutdown, conducting safe fuel handling and storage, and placing systems that are no longer necessary for safe facility operation into a storage or de-energized configuration.

The inspection planning interval between final reactor shutdown and the establishment of a safe and stable permanently shut down and defueled condition is called the Post‑Operation Transition Phase (Category 1). During this phase, the licensee establishes safe shutdown conditions and places the facility in a configuration acceptable for decommissioning, consistent with the decommissioning strategy chosen by the licensee. In addition, during this transition phase the licensee will be implementing policies, programs, and procedures to reflect the permanently shut down and defueled condition of the facility. These changes may include making physical modifications to the plant, such as alterations to the spent fuel pool that could modify the facility security plan.

Before undertaking any major decommissioning activities (as defined by 10 CFR 50.2 and above), the licensee must have: (1) certified the permanent removal of all reactor fuel from the vessel and the permanent cessation of operations; (2) submitted a PSDAR to the NRC; and (3) waited 90 days from the date the PSDAR was submitted to allow the NRC time to review the document and solicit stakeholder feedback via a public meeting and other interactions. Prior to these PSDAR activities being complete, a licensee may undertake any minor decommissioning activity that does not result in the permanent removal of major radioactive components (e.g., the steam generators, reactor vessel and internals, pressurizer, large bore reactor coolant system piping, and other large components that are radioactive), permanently modify the structure of the containment, or result in dismantling components for shipment that contain greater than Class C waste in accordance with 10 CFR 61.55, “Waste classification.”

Examples of activities that are not considered major decommissioning activities include: (1) those that could be performed under normal maintenance and repair procedures; (2) the removal of certain, relatively small radioactive components, such as control rod drive mechanisms, control rods, pumps, and valves; (3) removal of components similar to that for maintenance and/or repair; (4) removal of non‑radioactive components and structures not required for safety; and (5) activities related to radiological and contamination characterization.

An important inspection activity during facility decommissioning is the assessment of facility design changes and modifications that were not submitted to the NRC for review and approval before implementation. Such changes to the facility or licensing basis must be performed in accordance with 10 CFR 50.59, license conditions, and applicable licensee procedures. In addition, 10 CFR 50.82(a)(6) states that decommissioning activities must not: (1) foreclose release of the site for possible unrestricted use; (2) result in significant environmental impact not previously reviewed; (3) result in there no longer being reasonable assurance that adequate funds will be available for decommissioning; or (4) violate the terms of the existing facility license. Headquarters staff has the lead for assessing the appropriateness of a licensee's decommissioning fund allocation.

At a single unit power reactor facility that has just entered permanent shutdown, one of the two resident inspectors could be detailed away from the site shortly after the establishment of safe reactor shutdown. The remaining resident inspector should stay at the site for a pre-determined period as agreed upon by the applicable regional and headquarters Division Directors. Considerations for establishing this time period include if the licensee: (1) plans to enter active decontamination and dismantlement; (2) plans to enter SAFSTOR, and (3) had a significant operational event or accident prior to permanent shutdown. If (1) or (2) is applicable, resident support should be provided for approximately 3 to 6 months. The assignment of a resident inspector for less than 3 months or more than 6 months should be justified and documented in a memorandum to file, created by the Division of Operating Reactor Safety and agreed upon by the applicable regional and headquarters Division Directors. If (3) is applicable, the assignment of NRC staff to the site would be based solely on NRC management discretion, not subject to the guidance in this section.

For multi-unit reactor sites that have one or more units permanently shut down, the guidelines in the preceding paragraph would be applicable. However, the guidelines should be further defined by the following: (1) if multiple units are decommissioning and more than one resident inspector is assigned to the particular facility, a Senior Resident Inspector (SRI), or equivalent, should be assigned to supervise the NRC site activities; and (2) if one or more units remain operational and if there are full-time or part-time inspector(s) assigned to the decommissioning unit(s), the decommissioning resident inspectors should have a primary reporting responsibility to the applicable regional division management and a secondary reporting responsibility to the operational unit SRI when decommissioning activities have the potential of impacting operating unit safety. This command structure establishes one “senior” NRC representative at the site to represent the NRC when the need arises, and the structure minimizes any potential adverse impact on the operating unit that may be caused by activities at the decommissioning unit(s).

For multi-unit reactor sites at which there is a mix of operating and decommissioning units, but with no resident inspector coverage at the decommissioning unit(s), NRC management may allocate decommissioning inspection hours to the operating reactor resident inspector staff. These inspection activities may include observing licensee management meetings, reviewing corrective action program documentation and conducting discussions with the cognizant decommissioning management staff to ascertain the status of the decommissioning unit(s) or identify any problems encountered while implementing the site decommissioning strategy. Inspection activities may also include reviewing modifications if agreed upon by the Division of Operating Reactor Safety and the applicable regional Decommissioning first line supervisor. Resident inspector activities at the decommissioning unit(s) shall contribute to the NRC's overall mission and not detract from effective inspection oversight of the operating unit(s). For decommissioning event response, resident inspectors should be utilized in the same manner to assess and report the situation. The inspection activities conducted by the resident inspector(s) for any decommissioning unit should be charged to the applicable docket and decommissioning charge code.

## 06.05 General Inspection Conduct

The NRC inspection program can only cover a sampling of licensee activities in any particular area. Inspection activities should focus on in-person observations, interviews, and walkdowns in addition to document review with an emphasis on those activities with higher radiological risk. Where appropriate, supplementing on-site with remote inspection techniques may be used when warranted, e.g., document reviews, interviews. Direct observation shall be regarded as the preferred method of inspection. Remote inspection of activities that are normally directly observed should be considered only in rare or unusual circumstances and headquarters or regional management approval must be received, as applicable. Partial remote inspections may be approved by regional first line supervisors, but full remote inspections shall be approved by division management and should only occur infrequently. In practice, inspectors could consider performing document reviews remotely prior to the inspection or designating one inspector to support remotely (if there is sufficient inspectable remote work) for a more efficient use of onsite time and travel. Additionally, the remote use of technical experts is generally an efficient way to add additional technical rigor to an inspection with onsite presence, if work observations or walkdowns are necessary for inspection completion.

If such an unsafe work practice or violation is in progress, or is about to occur, the NRC inspector shall immediately bring the situation to the attention of the appropriate licensee personnel. This action shall be taken without regard for any impact it may have on the ability of the NRC to take future enforcement action.

Inspectors may conduct an entrance meeting in person or virtually at the beginning of the inspection though it is not a requirement (optional). Inspectors should consider the following to determine whether an entrance meeting should be conducted: (1) whether a licensee requests an entrance meeting; (2) early engagement with licensee management is desirable by the inspector; and (3) the inspection is complex and/or is a first-time evolution. If conducted, the lead inspector will review the overall inspection plan for the week and answer any questions.

Throughout the inspection process, the principle of "no surprises" should be observed. Through a combination of regular communications during the inspection and inspection status meetings (for those licensees who wish them) the licensee should have knowledge of the issues prior to the end of the inspection.

Inspectors are required to formally share inspection results in an exit meeting at the conclusion of each inspection. This includes at the conclusion of on-site inspections and the conclusion of larger inspection periods if used (i.e., quarterly inspection periods). Inspection results should be shared reasonably close to the end of the on-site inspection or inspection period. Inspection results should be shared at the end of the week of inspection but may be conducted virtually early the following week. Inspection results for longer inspection periods should be shared no later than two weeks after the end of the inspection period to allow for timely inspection report issuance. In cases, such as when an inspection results in no violations or issues, and with the agreement of the licensing representative, the final communication with the licensee (e.g., phone call, virtual, or in person) will serve as the exit meeting.

Exit or debrief meetings are NRC-led meetings convened to allow the inspector(s) to present preliminary inspection results to the licensee. As such, the NRC representative tasked with leading the meeting must maintain control of the meeting, ensuring that the discussion remains professional, on-track, and efficient. The meeting must not be allowed to degrade into a technical debate, a lecture, or a discussion of non‑inspection‑related issues. If the NRC representative finds that the purpose of the exit meeting cannot be realized (due, for example, to an overly argumentative licensee), the meeting should be terminated, and the appropriate NRC manager should be notified. During an exit meeting, the NRC representative need not repeat observations or activities from any previous inspection debriefs unless requested by the licensee but should provide an overview of any potential violations and be prepared to answer questions.

The information presented at an exit meeting is pre-decisional in nature and subsequent management review of the inspection results may lead to changes in the characterization of issues; this should be made clear at the outset of the meeting. The inspector should also point out that if changes are made in the characterization of issues, the NRC will communicate the changes to the licensee prior to the issuance of the inspection report. When violations are involved, the meeting should include a plain language description of the violation, and the standard that was not met.

Communicating inspection observations is an integral and important part of every inspection. Many licensees have expressed the desire to hear inspector insights related to safety/regulatory performance, even in instances where they do not reach the threshold for documentation in an inspection report. If the licensee does not want the observations or insights at the debrief/exit meeting, the inspectors should not discuss them. When deciding which observations and insights to pass on to the licensee, inspectors should consider the following:

* 1. The insights must relate to areas within NRC’s jurisdiction and responsibilities.
	2. Comments should be objective and supported with examples when possible. Avoid generalizations such as “procedure adherence was good.” Instead, just state the objective facts: “Procedures were followed in each case we observed.” Negative observations or insights must be supported with specific examples.
	3. Inspectors should avoid “consulting” for the licensee and not advise them on how to improve draft documents or in-process work.

Virtual meetings are acceptable, though in-person meetings should be considered if the NRC and licensee are not aligned on results. When implementing virtual meetings, ensure that sufficient effort is made in advance to verify the technology and users are prepared to maximize the likelihood of success. Be prepared to cancel, delay, or reconvene the meeting if technology issues arise such that insufficient participation occurs, or a loss of efficiency or effectiveness is realized. Consider obtaining feedback following the conduct of such meetings to validate that efficiency and effectiveness goals were reached.

Inspection results shall be documented in an inspection report consistent with the guidance provided in IMC 0610, “Nuclear Material Safety and Safeguards Inspection Reports.”

## 06.06 Inspector Efforts

The resource estimates provided in Appendix A are for planning purposes and provide an estimated range of time needed to complete the IP objectives at a facility based on historical experience. Deviations from the estimate are acceptable and should be made on a site specific basis. Factors to consider include but are not limited to current licensee performance, multi-unit site considerations, resident inspection activities, events, the risk significance and schedule of decommissioning activities being conducted by the licensee, and the radiological source term present at the site.

Inspection preparation activities include contacting the licensee about performing the inspection, scheduling the inspection, requesting documents to be reviewed, reviewing licensing basis documentation, and selecting a sample of documents for review (i.e., selecting corrective action documentation from a list of reports for further review). The threshold for pivoting from preparation to direct inspection should occur when an inspector is actively implementing a specific inspection procedure requirement.

Direct inspection effort (on-site or remote) includes reviews of licensee-generated records, conducting interviews, any on-site inspection effort performed through in-person observation of licensee personnel, and walkdowns of the facility. Daily communication while on-site with licensee personnel is an integral part of every inspection procedure, and the time used for such routine communications should be charged to the inspection procedures used. Periodic meetings with the licensee, and any (optional) entrance, debrief, and exit meetings should be charged to decommissioning inspection communications.

## 06.07 Inspection Program Philosophy

Decommissioning inspections provide a sufficient examination of licensee activities to monitor licensee performance and identify risk-significant issues to assess licensee safety performance. This risk-informed approach is a philosophy in which risk insights are considered together with other factors to determine a course of action that focuses inspection activities commensurate with the licensee’s authorized program. Risk can be determined by evaluating the combined answer to three questions (i.e., the risk triplet): (1) what can go wrong, (2) how likely it is, and (3) what its consequences might be.

Radiological risks continue to exist after a nuclear facility begins decommissioning, but the nature and magnitude of the risks are significantly lower than when the facility was an operating reactor. As a nuclear power plant transitions from operations to decommissioning, there are fewer potential emergency scenarios that could result in a significant offsite radiological release. It should be noted that the Quantitative Safety Objectives of core damage frequency (CDF) and large early release frequency (LERF) only apply directly to operating reactors (NUREG-0800, “Safety Goals for Nuclear Power Plant Operation,” Revision 1) and therefore do not apply to shut-down reactors.

The inspection program is based on several factors, including operational experience, subject matter expertise, spent fuel safety, and environmental and occupational and public dose impacts, rather than in sole response to a quantitative analysis of accident probabilities. There are higher risks associated with dismantlement work, including unusual or infrequently performed evolutions, decrease of engineered barriers, high energy cutting mechanisms, (hot work), and access to highly irradiated or contaminated material. Accordingly, the program is risk-informed, rather than risk-based, and does not rely solely on numerical estimates of risk metrics. The risk of decommissioning and the resultant inspection effort depends on the phase of decommissioning the unit is in and ongoing activities, including whether spent nuclear fuel is in wet storage.

The inspection program is risk-informed through (1) the inspectable areas; (2) the inspection frequency and estimated effort for each inspectable area; and (3) selection of licensee activities of higher risk significance while performing each procedure. Inspector judgment should be used with manager approval to ensure that inspector resources are put in place to directly observe the most risk-significant activities each year as is reasonable based on budget and staffing. As an example, if a licensee is planning to perform one or more Type B shipments during the calendar year, inspection staff should make a reasonable attempt to observe this higher risk activity rather than observing a lower risk shipment (i.e., a Type A or LSA shipment) even if this requires an additional trip to the site.

Performance-based inspection emphasizes observing activities and the results of licensee programs over reviewing procedures or records. For example, an inspector may identify an issue through observing an activity in progress. Discussions with plant personnel and reviewing documents should be used to enhance or verify performance‑based observations.

## 06.08 Very Low Safety Significance Issue Resolution (VLSSIR) Process

VLSSIR is a process used to discontinue inspection, screening, and evaluation of an issue involving ambiguity in the licensing basis, design basis, or applicability of regulatory requirements or licensee self-imposed standards in which: (1) the resolution of the issue would require considerable staff effort; and (2) the agency has chosen to not expend further effort to resolve the question because the issue would be no greater than Green under the Reactor Oversight Process or SL-IV under the traditional enforcement process, if resolved. VLSSIR is not intended to be used to disposition an issue of concern in which the NRC and licensee simply do not agree, absent some level of ambiguity in NRC’s view of the issue. It is important to listen to and consider licensee perspectives and VLSSIR consideration is not intended to undermine that. See IMC 0610 Appendix G for guidance on whether to use VLSSIR.

## 06.09 Decommissioning Inspector Qualifications

When a power reactor transitions from operating to decommissioning, the risk onsite changes from an operating site with all its associated structures, systems, and components (SSCs) needed for safe shutdown to SSCs needed for safe storage of spent fuel in the spent fuel pool and decontamination and decommissioning radiological risk. During decommissioning, spent fuel is generally transferred to an ISFSI and the radiological risk remains. Because of the increased inspection focus on radiological risk, decommissioning inspectors are health physicists. While decommissioning inspectors are trained to inspect non-health physics related areas such as fire protection and spent fuel pool safety, it is prudent to bring in specialists during transitional periods.

It is required that all reactor decommissioning inspectors be qualified in accordance with IMC 1248, “Formal Qualifications Program for Federal and State Material and Environmental Management Programs,” Appendix F, “Training Requirements and Qualification Journal for Decommissioning Inspectors,” Reactor Decommissioning Inspector. Inspectors with only basic level qualification under IMC 1248 Appendix F may charge to decommissioning inspection procedures as deemed appropriate by the decommissioning first line supervisor but shall only perform inspection while under onsite oversight of a fully qualified inspector. Any inspector that is not qualified under IMC 1248 should perform only the decommissioning IPs as agreed upon with the regional decommissioning first line supervisor. Some specific examples are as follows:

* Inspectors qualified under IMC 1245 Appendix C3 should be deemed adequately qualified to inspect using IPs 83750, 84750, and 86750.
* Inspectors qualified under IMC 1245 Appendix C1 and C2 should generally be deemed adequately qualified to inspect using IPs 37801, 60801, and 71801.
* Inspectors qualified under IMC 1245 Appendix C7 should be adequately qualified to inspect using IP 64704.
* Inspectors qualified under IMC 1245 Appendix C6 should be deemed adequately qualified to inspect using IPs 82401 and 82501.

Oversight or coordination with NMSS may be needed during the review and approval process for the license termination plan (10 CFR 50.82(a)(9)) in order to verify or validate implementation of the radiological remediation strategies described in the plan. As appropriate, an outside contractor may be used to provide independent verification of adequate site cleanup and remediation of residual radioactivity. NRC oversight of its contractor may be performed by any knowledgeable NRC individual.

If an inspector believes that they have operating experience insights that would be beneficial to other NRC staff or licensees of operating reactors, they should provide that information to the Operating Experience Resource Box at: NRR\_DRO\_IOEB.Resource@nrc.gov.

## 06.10 Inspection Program Modifications in Event of a Widespread Interruption of Normal Operations

In the event of a pandemic, epidemic, or other widespread interruption of normal operations, NRC management shall determine what program functions need to be maintained as priority functions. The NRC may allow modifications to less critical aspects of the inspection program in order to address limited inspection resources. If necessary, the routine inspection program can be reduced such that only monitoring of plant status and high risk-significant activities is performed through onsite or remote inspection. Reactive inspections will continue. Normal inspection activities will resume once the widespread interruption has passed, and reasonable efforts will be made to complete missed core inspection activities before the end of the calendar year.

END

Appendices

A. Decommissioning Power Reactors Core Inspection Program

B. Discretionary Inspection Procedures for Decommissioning Power Reactors

Appendix A: Decommissioning Power Reactors Core and Periodic Inspection Program

The decommissioning inspection program is completed by performing both core IPs and applicable periodic IPs each calendar year at an appropriate level of effort commensurate with the most applicable decommissioning inspection category found in Appendix A of this IMC. The core inspection program can be supplemented by discretionary procedures listed in Appendix B of this IMC or any other NRC inspection procedure deemed applicable to augment the core inspection program, follow up on enforcement actions, and respond to events at decommissioning power reactors. The inspection program provides appropriate latitude for NRC management to administer, plan, and implement site-specific inspections commensurate with the licensee’s performance, risk significant site decommissioning activities, and safety. Biennial and triennial inspections shall be deemed timely if conducted no later than the end of the calendar year in which the applicable inspection interval concludes, measured from the date of the previous inspection.

NRC regional management and staff should note that the inspection categories described below are meant to be fluid. There may be an overlap between categories; therefore, the inspection effort should be adjusted based on the risk significance of site activities, licensee performance, multi-unit considerations, co-located sites, and other considerations described elsewhere in this IMC. The inspection category is chosen by NRC inspectors and management to be reflective of what they believe is the most appropriate category in inspection space.

The direct inspection hours listed for each of the IPs are intended to inform the inspector as to the approximate level of effort expected to complete each IP. Some IPs may take more or less time than listed. The responsible regional manager should be aware of the levels of inspection efforts to manage resource responsibilities.

The direct inspection hours listed are estimates for planning purposes and may be adjusted to reflect actual inspection needs including the risk significance of on-going activities, licensee’s performance, and site transitional periods, including (1) any recent licensee layoffs; (2) presence of new-to-nuclear workers; (3) change in key technical personnel (i.e., instrument radiation protection technician or radwaste shipper); (4) increase in site activities; (5) transition of the operating license to another entity or a general decommissioning contractor is used to perform reactor decommissioning or maintain the unit in SAFSTOR; and (6) safety culture observations. Inspections during programmatic transitional periods should also be increased. Direct inspection hour estimates should be increased as necessary for sites that had an accident and multiplied by 1.5 for sites with multi-units undergoing active decommissioning.

The estimated hours should not be used to determine whether the IP was satisfactorily completed. The estimated hours are intended to provide guidelines for inspection planning and budgeting purposes. The responsible regional manager should be aware of the levels of inspection effort anticipated to manage resource responsibilities and should approve any significant deviations from the estimated hours.

To determine what IPs should be completed, inspectors should categorize the decommissioning site, utilize the core IPs found in the associated table, assess whether any periodic procedures should be used from Table A-5, and determine whether any additional procedures should be utilized from Appendix B or from any other NRC procedure or program deemed appropriate. The regional manager to inspectors has the authority to reduce annual or periodic requirements as deemed appropriate based on, in part, the risk significance and amount of ongoing site activities. The decision not to perform a core inspection procedure, however, should be documented with appropriate justification in an inspection report.

### I. Core Inspection Procedures for Decommissioning Power Reactors

IP 37801 Decommissioning Safety Reviews, Design Changes, and Modifications

IP 60801 Decommissioning Spent Fuel Pool Maintenance, Surveillance, and Safety

IP 64704 Decommissioning Fire Protection Program

IP 71801 Decommissioning Implementation and Status

IP 83750 Decommissioning Occupational Radiation Control

IP 83801 Inspection of Remedial and Final Surveys at Decommissioning Reactors

IP 84750 Decommissioning Radioactive Waste Treatment, and Effluent and Environmental Monitoring

IP 86750 Decommissioning Solid Radioactive Waste Management, Demolition, and Transportation of Radioactive Materials

### II. Periodic Inspection Procedures for Decommissioning Power Reactor

IP 82401 Decommissioning Emergency Preparedness Scenario Review and Exercise Evaluation

IP 82501 Decommissioning Emergency Preparedness Program Evaluation

IP 85103 Decommissioning Material Control and Accounting at Decommissioning Nuclear Power Reactors

## Category 1: Post-Operation Transition Phase

Power reactors are placed in this category of inspection subsequent to transition to the IMC 2561 inspection program as designated by a letter from NRC Regional management to the licensee. See Section 06.04 for additional details.

Inspections conducted early in the decommissioning process should: (1) provide sufficient evidence to confirm that the licensee can or will safely transition into decommissioning; (2) verify that procedures, programs, and facility operations implement license requirements and reflect the current licensing bases as described in the Final Safety Analysis Report (or Updated Final Safety Analysis Report), the PSDAR, or other applicable licensing basis documentation; (3) confirm that management oversight and control, as well as safety culture, are adequate; and (4) take appropriate credit for NRC inspections that were conducted while the unit was operating prior to transitioning to the decommissioning phase.

NRC regional management and staff should consider transitioning from this Category and into the next most appropriate Category based on the following factors: (1) any initial effort of deenergizing SSCs is complete or nearing completion; (2) decommissioning technical specifications and/or other typical licensing actions are completed; (3) current site activities; (4) site decommissioning strategy; and (5) any permitting requirements or licensing changes to begin decommissioning have been received.

Appropriately credit any ROP inspections to the below inspection efforts. During the calendar year of the unit shutdown, credit is allowed for ROP inspections performed at any point within the current ROP cycle (biannual, triennial, etc.).

Table A-1

|  |  |  |  |
| --- | --- | --- | --- |
| **Core IPs** | **Title** | **Category 1** | **Procedure Use Guidance** |
| Post-Operation Transition Phase |
| **Estimated Direct Inspection****Hour Range** |
| 37801 | Decommissioning Safety Reviews,Design Changes, and Modifications | 20 - 72 | Typically, a large initial effort to declassify SSCs. Utilize resident inspectors and regional SMEs as able. Inspection effort is expected to be on the high end in the period soon after shutdown. |
| 60801 | Decommissioning Spent Fuel PoolMaintenance, Surveillance, and Safety | 32 - 48 | Near shutdown, focus on changes to the maintenance program, SSCs, and implementation of any changes to technical specifications. |
| 64704 | Decommissioning Fire Protection Program | 8 - 24 | Consider use of inspectors with fire protection expertise until and including if the site transitions to an incipient fire brigade. |
| 71801 | Decommissioning Implementation and Status | 40 - 80 | Utilize IP 37801 in lieu of Section 03.02.a, "DesignChanges, Tests, Experiments, and Modifications." |
| 83750 | Decommissioning OccupationalRadiation Control | 40 - 160 | Resident inspectors may inspect under section03.01, "Radiological Work Operations." |
| 83801 | Inspection of Remedial and Final Surveys at Decommissioning Reactors | Varies |  |
| 84750 | Decommissioning Radioactive Waste Treatment, and Effluent and Environmental Monitoring | 5 - 20 |  |
| 86750 | Decommissioning Solid Radioactive Waste Management, Demolition, and Transportation of Radioactive Materials | 10 - 70 | May vary considerably. Consider observing higherrisk items such as resin sluices, radioactive wastesystem clean ups, and associated shipments. |

## Category 2: Active Decommissioning (DECON), Fuel in the Spent Fuel Pool and

## Category 3: Active Decommissioning (DECON), No Fuel in the Spent Fuel Pool

NRC regional management and staff should consider decommissioning units to be in the active decommissioning phase when site activities include active decommissioning and dismantling of equipment, structures, and portions of the facility and site that contain radioactive contaminants to a level that permits termination of the license after cessation of operations. These categories may be entered into directly after Category 1 or after a site has utilized part of its 60 allotted years in a SAFSTOR state. The main differences between inspection effort for Categories 2 and 3 include inspection of spent fuel pool safety under IP 60801 and additional effort under the fire protection procedure for Category 2.

Should a unit in active decommissioning be co-located with an operating unit of the same licensee, inspectors should review inspections conducted under the ROP and determine where credit may be given to the decommissioning inspection program.

Table A-2

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Core IPs** | **Title** | **Category 2** | **Category 3** | **Procedure Use Guidance** |
| Active Decommissioning, Fuel the Spent Fuel Pool | Active Decommissioning. No Fuel in the Spent Fuel Pool |
| **Estimated Direct Inspection Hour Range** |
| 60801 | Decommissioning Spent Fuel Pool Maintenance, Surveillance, Safety | 8 - 30 | N/A |  |
| 64704 | Decommissioning Fire Protection Program | 15 - 40 | 10 - 35 | May vary substantially based on amount of hot work in radiologically controlled areas and changes to the fire protection program. Should the site transition to an incipient fire brigade, consider use of inspectors with fire protection expertise. |
| 71801 | Decommissioning Implementation and Status | 40 - 70 | 35 - 65 |  |
| 83750 | Decommissioning Occupational Radiation Control | 80 - 160 | 80 - 160 | Parts of procedure should be performed during every inspection. |
| 83801 | Inspection of Remedial and Final Surveys at Decommissioning Reactors | Varies | Varies |  |
| 84750 | Decommissioning Radioactive Waste Treatment, and Effluent and Environmental Monitoring | 5 - 20 | 5 - 20 | Perform focused inspection annually for sites with known groundwater plumes. |
| 86750 | Decommissioning Solid Radioactive Waste Management, Demolition, and Transportation of Radioactive Materials | 20 - 100 | 20 - 100 | May vary substantially based on amount and significance of radiological shipments and waste packaging. |

## Category 4: SAFSTOR, Fuel in the Spent Fuel Pool,

## Category 5: SAFSTOR, No Fuel in the Spent Fuel Pool,

## Category 6: SAFSTOR Co-Located with an Operating Unit, Fuel in the Spent Fuel Pool,

## Category 7: SAFSTOR Co-Located with an Operating Unit, No Fuel in the Spent Fuel Pool

NRC regional management and staff should consider transitioning decommissioning units to a SAFSTOR category based on the following factors: (1) planned spent fuel end state (i.e., transition to an ISFSI or creation of a spent fuel pool island); (2) timing of any significant staffing reductions; (3) level and risk of site activities; and (4) any licensing commitments specific to SAFSTOR. Overall, consider whether the site is in a safe, stable condition to be maintained in that state until it is subsequently decontaminated and dismantled to levels that will support and permit license termination.

For power reactors in a SAFSTOR condition, it is not expected that the licensee will undertake activities that have the potential to significantly impact public health and safety, security, or the environment. Therefore, the direct inspection effort for units in SAFSTOR is likely to be at the lower end of the range for decommissioning inspections, while still maintaining an acceptable periodic NRC presence at the site. Similarly, although a power reactor unit may be in SAFSTOR, the licensee may elect to incrementally dismantle the facility over the course of years using the 10 CFR 50.59 process. To account for the potential incremental dismantlement of a facility while in SAFSTOR, the decommissioning inspection program conservatively assumes that licensee procedures, controls, staff knowledge and cognizance of the 10 CFR Part 50 requirements could diminish over time and anticipates that the direct inspection effort for sites in SAFSTOR would increase.

The inspection frequency for sites in Categories 5 and 7 is not to exceed biennial. On an annual basis the NRC regional manager and inspection staff should consider recent violations, licensee performance, plant status, and site activities (i.e., risk-significant shipment, removal of SSCs, etc.) when making frequency decisions.

Decommissioning units in Categories 4 and 6 shall be inspected annually, commensurate with operating experience (see Bulletin 94-01, “Potential Fuel Pool Draindown Caused by Inadequate Maintenance Practices at Dresden Unit 1” and Information Notice 94-38, “Results of a Special NRC Inspection at Dresden Nuclear Power Station Unit 1 Following a Rupture of Service Water Inside Containment”). Inspectors shall conduct a walkdown of the accessible facilities during every inspection period.

The direct inspection hours listed below represent typical SAFSTOR conditions. Hours should be increased commensurate with any radiologically significant activities or reviews that warrant additional attention, such as risk-significant radioactive shipments.

Table A-3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Core IPs** | **Title** | **Category 4** | **Category 5** | **Category 6** | **Category 7** | **Procedure Use Guidance** |
| SAFSTOR, Fuel in the Spent Fuel Pool | SAFSTOR, No Fuel in the Spent Fuel Pool | SAFSTOR Co-Locatedwith an Operational Unit, Fuel in the Spent Fuel Pool | SAFSTOR Co-Located with an Operational Unit, No Fuel in the Spent Fuel Pool |
| **Estimated Direct Inspection Hour Range** |
| 60801 | Decommissioning Spent Fuel PoolMaintenance, Surveillance, and Safety | 8 - 30 | N/A | 8 - 20 | N/A |  |
| 64704 | Decommissioning Fire Protection Program | 2 - 6 | 1 - 4 | 1 - 2 | 0.5 - 1 |  |
| 71801 | Decommissioning Implementation and Status | 1 - 4 | 1 - 3 | 1 - 4 | 1 - 3 |  |
| 83750 | Decommissioning Occupational Radiation Control | 4 - 16 | 4 - 12 | 1 - 4 | 1 - 3 |  |
| 83801 | Inspection of Remedial and Final Surveys at Decommissioning Reactors | Varies | Varies | Varies | Varies |  |
| 84750 | Decommissioning Radioactive Waste Treatment, and Effluent and Environmental Monitoring | 2 - 12 | 1 - 10 | 0.5 - 4 | 0.5 - 4 | Hours may increase if groundwater contamination issues are identified or exist on site. |
| 86750 | Decommissioning Solid Radioactive Waste Management, Demolition, and Transportation of Radioactive Materials | 0.5 - 2 | 0.5 - 1 | 0 - 2 | 0 – 0.5 | Could vary dependent on radioactive shipments. |

## Category 8 - Final Status Surveys Underway, No Fuel in the Spent Fuel Pool

NRC regional management and staff should consider transitioning decommissioning units to Category 8 by using the following factors: (1) the majority of activities onsite consist of final status surveys, and (2) most or all of the radiologically impacted buildings have been decontaminated and demolished. Note that the range of inspection hours in this category can significantly vary based on site activities. There is increased NRC contractor activity onsite during this decommissioning phase should headquarters management decide that confirmatory surveys will be conducted. The NRC headquarters project manager is responsible for coordinating confirmatory surveys. Increased efficiency can be achieved by coordinating inspection efforts during NRC contractor presence onsite. However, any NRC representative can perform NRC contractor oversight responsibilities. The NRC representative could charge to IP 83801, “Inspection of Remedial and Final Surveys at Decommissioning Reactors,” but only for oversight responsibilities. Note that the contracting officer representative (COR) shall be contacted for any changes in contractor responsibilities.

Table A-4

|  |  |  |  |
| --- | --- | --- | --- |
| **Core IPs** | **Title** | **Category 8** | **Procedure Use Guidance** |
| Final Status Surveys Underway,No Fuel in the Spent Fuel Pool |
| **Estimated Direct Inspection****Hour Range** |
| 64704 | Decommissioning Fire Protection Program | 0 - 4 | Consider whether this procedure needs to be performed. Consider presence of radioactive material and whether the licensee is performing hot work activities. |
| 71801 | Decommissioning Implementation and Status | 0.5 - 20 | Could vary further considering number and significance of changes to the LTP and procedures. |
| 83750 | Decommissioning Occupational Radiation Control | 1 - 15 |  |
| 83801 | Inspection of Remedial and Final Surveys at Decommissioning Reactors | 0 - 250 |  |
| 84750 | Decommissioning Radioactive Waste Treatment, andEffluent and Environmental Monitoring | 0.5 - 10 | Focus inspection on a review of annual reports and changes to the program. |
| 86750 | Decommissioning Solid Radioactive Waste Management, Demolition, and Transportation of Radioactive Materials | 0 - 20 |  |

## Category 9 - Active Transition to Restart

NRC regional management and staff should transition decommissioning units to Category 9 when a licensee submits a request for exemption from the requirements of 10 CFR 50.82 to allow placing fuel in the reactor vessel and authorizing operation of the reactor. Note that a licensee may explore restart of a reactor while in a decommissioning status (e.g., perform steam generator tube inspections). During this exploration, NRC staff should perform inspection of radiologically risk significant activities to ensure the facility’s ongoing safety and operations. Inspection results should be shared with the licensee per the normal process. NRC management should use discretion to ensure that documentation does not impact the licensee.

Once a decommissioning unit is transitioned to Category 9, IMC 2561 is put in abeyance. However, adequate inspections shall be completed to meet the objective of ensuring licensee activities are conducted safely, spent fuel is safely secured and stored on site, and that site operations are in conformance with applicable regulatory requirements. These inspections may be conducted under whichever inspection procedures and by whichever inspector(s) are deemed to be most appropriate by the responsible regional manager. It is expected that inspections of occupational and public radiation protection, fire protection, including hot work impacting radiologically impacted SSCs, and a site walkdown be done annually. Time and resources should generally be charged to IMC 2562. However, specific activities tied to continued decommissioning oversight should be charged to IMC 2561. This approach ensures programmatic requirements are met even if restart efforts are unsuccessful.

## Periodic Inspection Procedures

During inspection planning, inspectors should determine whether the below inspections apply. Inspectors should work with their management to use the appropriate subject matter expertise to complete the inspections.

Table A-5

|  |  |  |  |
| --- | --- | --- | --- |
| **IP** | **Title** | **All Categories** | **Procedure Use Guidance** |
| **Estimated Direct Inspection Hour Range** |
| 82401 | Decommissioning Emergency Preparedness Scenario Review andExercise Evaluation | 15 - 40 | Perform biennially during the annual EP exercise until spent fuel is placed on the ISFSI. For sites co‑located with an operating reactor, credit the ROP inspections. Effort is expected to decrease over time. Consider use of EP qualified inspectors. |
| 82501 | Decommissioning EmergencyPreparedness Program Evaluation | 8 - 20 | Perform biennially until all spent fuel is placed on the ISFSI. For sites co-located with an operating reactor, credit the ROP inspections. Effort is expected to decrease over time. Consider use of EP qualified inspectors. |
| 85103 | Material Control Decommissioning Nuclear Powerand Accounting at Reactors | 8 – 16While spent fuel is in the pool0.5 – 3After spent fuel and other material is removed fromthe spent fuel pool | Consider performing triennially. Inspection effort will vary significantly based on site conditions andwhether the site is co-located with an operatingreactor. To determine inspection effort andapplicability, inspectors should avoid duplicatingMC&A program review for co-located sites and should scale the inspection dependent on the amount of material onsite. Once most material is removed from the site, generally when spent fuel is placed on the ISFSI and the fuel pool is cleaned out, perform focused inspection at that point. |

APPENDIX B

# Discretionary Inspection Documents for Decommissioning Power Reactors

Inspection procedures not listed below or in Appendix A may also be used if deemed by the inspector and their management to be useful.

IP 378011 Safety Reviews, Design Changes, and Modifications

IP 408022 Financial Assurance at Decommissioning Power Reactors

IP 71124 Radiation Safety—Public and Occupational

IP 71152 Problem Identification and Resolution

IP 871373 10 CFR Part 37 Materials Security Program

IP 90712 In office Review of Written Reports of ‑Routine Events at Power Reactor Facilities

IP 92700 Onsite Follow-up of Written Reports of Nonroutine Events at Power Reactor Facilities

IP 92702 Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, And Alternative Dispute Resolution Confirmatory Orders

IP 92720 Corrective Action

IP 93812 Special Inspection

IP 93800 Augmented Inspection Team

IMC 1230 Quality Assurance Program for Radiological Confirmatory Measurements

IMC 1232 Collection, Preparation, and Shipment of Independent Measurement Samples

IRMC 300 Incident Investigation

Notes:

1. IP 37801 is a core procedure for Category 1 sites. Inspectors may use it for decommissioning sites in other inspection categories if a programmatic, in-depth inspection of the 50.59 process is warranted.

2. Inspectors and regional management should utilize a low threshold for implementing this procedure. Triggers are listed in section 40802-02 General Guidance.

3. Consider using this procedure for major changes to the Part 37 program, including when all spent fuel is placed on the ISFSI and the Part 73 security program is downsized to just cover the ISFSI. Consider use of inspectors with reactor and/or materials security expertise.

END

Revision History for IMC 2561

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Commitment Tracking Number | Accession NumberIssue DateChange Notice | Description of Change | Description of Training Required and Completion Date | Comment Resolution and Closed Feedback Form Accession Number(Pre-Decisional, Non-Public Information) |
|  | 03/26/92CN 92-003 | Initial issuance to establish the inspection policy and guidance for nuclear power reactor facilities during the interval between permanent shutdown and the NRC’s approval of a licensee’s decommissioning plan. |  |  |
|  | 08/11/97CN 97-012 | Revised to enhance the NRC inspection of decommissioning power reactors. The IMC requires implementation of a core inspection program and provides inspection guidance for the staff. The IMC was also revised to address a recent amendment to the decommissioning regulations (10 CFR 50.82). This revision does not increase the die allocation and will be applicable during all phases of decommissioning. Note that SALP is not performed for decommissioning reactors. |  |  |
|  | ML03127050204/23/03CN 03-012 | IMC 2561 (Decommissioning Power Reactor Inspection Program) has been revised to reflect recent changes in the program. |  |  |
|  | ML17348A40003/06/18CN 18-007 | Revised the manual chapter to reflect updates in the overall decommissioning reactor inspection program and reflect the changes to the core and discretionary inspection procedures. | None | ML17362A141 |
|  | ML20358A13101/06/21CN 21-002 | Revised to reflect updates in the overall decommissioning reactor inspection program and reflect the changes to the core and discretionary inspection procedures. This revision also addressed lessons learned from decommissioning inspectors.  |  | ML20358A132 |
|  | ML25139A09406/27/25CN 25-022 | Complete rewrite of IMC 2561 to provide the following:* Incorporated Very Low Safety Significance Issue Resolution Process.
* Risk-informed the inspection process – added additional flexibility to inspection procedure and program completion.
* Incorporated lessons learned since the last revision.
* Incorporated Management Directive 8.3 for event response.
 |  | ML25148A025 |